Teresa Lana-Villarreal

List of Publications by Year
in descending order

58 papers	3,405 citations	147566 31 h-index	138251 58 g-index
59 all docs	59 docs citations	59 times ranked	4537 citing authors

#	Article	IF	Citations
1	Improving the performance of colloidal quantum-dot-sensitized solar cells. Nanotechnology, 2009, 20, 295204.	1.3	383
2	CdSe Quantum Dot-Sensitized TiO₂ Electrodes: Effect of Quantum Dot Coverage and Mode of Attachment. Journal of Physical Chemistry C, 2009, 113, 4208-4214.	1.5	328
3	The Electrochemistry of Nanostructured Titanium Dioxide Electrodes. ChemPhysChem, 2012, 13, 2824-2875.	1.0	239
4	Uncovering the role of the ZnS treatment in the performance of quantum dot sensitized solar cells. Physical Chemistry Chemical Physics, 2011, 13, 12024.	1.3	217
5	A Spectroscopic and Electrochemical Approach to the Study of the Interactions and Photoinduced Electron Transfer between Catechol and Anatase Nanoparticles in Aqueous Solution. Journal of the American Chemical Society, 2005, 127, 12601-12611.	6.6	160
6	Semiconductor Photooxidation of Pollutants Dissolved in Water:â€‰ A Kinetic Model for Distinguishing between Direct and Indirect Interfacial Hole Transfer. I. Photoelectrochemical Experiments with Polycrystalline Anatase Electrodes under Current Doubling and Absence of Recombination. Journal of Physical Chemistry B, 2004, 108, 15172-15181.	1.2	154
7	Nanostructured Zinc Stannate as Semiconductor Working Electrodes for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2007, 111, 5549-5556.	1.5	143
8	Sensitization of Titanium Dioxide Photoanodes with Cadmium Selenide Quantum Dots Prepared by SILAR: Photoelectrochemical and Carrier Dynamics Studies. Journal of Physical Chemistry C, 2010, 114, 21928-21937.	1.5	120
9	An Electrochemical Study on the Nature of Trap States in Nanocrystalline Rutile Thin Films. Journal of Physical Chemistry C, 2007, 111, 9936-9942.	1.5	117
10	Direct Correlation between Ultrafast Injection and Photoanode Performance in Quantum Dot Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 22352-22360.	1.5	97
11	Charge transfer reductive doping of nanostructured TiO2 thin films as a way to improve their photoelectrocatalytic performance. Electrochemistry Communications, 2006, 8, 1713-1718.	2.3	89
12	Toward Antimony Selenide Sensitized Solar Cells: Efficient Charge Photogeneration at <i>spiro</i>-OMeTAD/Sb₂Se₃/Metal Oxide Heterojunctions. Journal of Physical Chemistry Letters, 2012, 3, 1351-1356.	2.1	85
13	Trap States in TiO₂ Films Made of Nanowires, Nanotubes or Nanoparticles: An Electrochemical Study. ChemPhysChem, 2012, 13, 3008-3017.	1.0	73
14	Sensitization of TiO2 with PbSe Quantum Dots by SILAR: How Mercaptophenol Improves Charge Separation. Journal of Physical Chemistry Letters, 2012, 3, 3367-3372.	2.1	62
15	Effect of Surface Fluorination on the Electrochemical and Photoelectrocatalytic Properties of Nanoporous Titanium Dioxide Electrodes. Langmuir, 2011, 27, 15312-15321.	1.6	55
16	Synthesis of TiO2/WO3 nanoparticles via sonochemical approach for the photocatalytic degradation of methylene blue under visible light illumination. Ultrasonics Sonochemistry, 2014, 21, 1964-1968.	3.8	53
17	A comparison of quantum-sized anatase and rutile nanowire thin films: Devising differences in the electronic structure from photoelectrochemical measurements. Electrochimica Acta, 2012, 62, 172-180.	2.6	51
18	Oxygen evolution at ultrathin nanostructured Ni(OH)2 layers deposited on conducting glass. International Journal of Hydrogen Energy, 2013, 38, 2746-2753.	3.8	48

#	Article	IF	Citations
19	Improving the photoactivity of bismuth vanadate thin film photoanodes through doping and surface modification strategies. Applied Catalysis B: Environmental, 2016, 194, 141-149.	10.8	45
20	Sonochemical Synthesis of Mesoporous NiTiO₃ Ilmenite Nanorods for the Catalytic Degradation of Tergitol in Water. Industrial & Engineering Chemistry Research, 2015, 54, 2983-2990.	1.8	44
21	Photogeneration of Hydrogen from Water by Hybrid Molybdenum Sulfide Clusters Immobilized on Titania. ChemSusChem, 2015, 8, 148-157.	3.6	44
22	Determination of limiting factors of photovoltaic efficiency in quantum dot sensitized solar cells: Correlation between cell performance and structural properties. Journal of Applied Physics, 2010, 108, 064310.	1.1	42
23	Efficient sensitization of ZnO nanoporous films with CdSe QDs grown by Successive Ionic Layer Adsorption and Reaction (SILAR). Journal of Photochemistry and Photobiology A: Chemistry, 2011, 220, 47-53.	2.0	42
24	Energy transfer versus charge separation in hybrid systems of semiconductor quantum dots and Ru-dyes as potential co-sensitizers of TiO2-based solar cells. Journal of Applied Physics, 2011, 110, .	1.1	42
25	Study of Copper Ferrite as a Novel Photocathode for Water Reduction: Improving Its Photoactivity by Electrochemical Pretreatment. ChemSusChem, 2016, 9, 1504-1512.	3.6	42
26	SnO2-decorated multiwalled carbon nanotubes and Vulcan carbon through a sonochemical approach for supercapacitor applications. Ultrasonics Sonochemistry, 2016, 29, 205-212.	3.8	39
27	Preparation and Characterization of Nickel Oxide Photocathodes Sensitized with Colloidal Cadmium Selenide Quantum Dots. Journal of Physical Chemistry C, 2013, 117, 22509-22517.	1.5	38
28	A solid-state CdSe quantum dot sensitized solar cell based on a quaterthiophene as a hole transporting material. Physical Chemistry Chemical Physics, 2012, 14, 5801.	1.3	37
29	Thin Films of Rutile Quantum-size Nanowires as Electrodes: Photoelectrochemical Studies. Journal of Physical Chemistry C, 2008, 112, 15920-15928.	1.5	36
30	Solâ€“gel copper chromium delafossite thin films as stable oxide photocathodes for water splitting. Journal of Materials Chemistry A, 2015, 3, 19683-19687.	5.2	36
31	Interfacial electron transfer at TiO2 nanostructured electrodes modified with capped gold nanoparticles: The photoelectrochemistry of water oxidation. Electrochemistry Communications, 2005, 7, 1218-1224.	2.3	32
32	Photoelectrochemical behaviour of anatase nanoporous films: effect of the nanoparticle organization. Nanoscale, 2010, 2, 1690.	2.8	27
33	Tuning the photoelectrochemistry of nanoporous anatase electrodes by modification with gold nanoparticles: Development of cathodic photocurrents. Chemical Physics Letters, 2005, 414, 489-494.	1.2	26
34	Catalytic degradation of a plasticizer, di-ethylhexyl phthalate, using Nxâ€“TiO2âˆ’x nanoparticles synthesized via co-precipitation. Chemical Engineering Journal, 2013, 231, 182-189.	6.6	26
35	Interplay Between Structure, Stoichiometry, and Electron Transfer Dynamics in SILAR-based Quantum Dot-Sensitized Oxides. Nano Letters, 2014, 14, 5780-5786.	4.5	26
36	Photoelectrocatalytic production of solar fuels with semiconductor oxides: materials, activity and modeling. Chemical Communications, 2020, 56, 12272-12289.	2.2	24

#	Article	IF	Citations
37	The electrochemistry of transparent quantum size rutile nanowire thin films prepared by one-step low temperature chemical bath deposition. Chemical Physics Letters, 2007, 447, 91-95.	1.2	22
38	Solid-state electropolymerization and doping of triphenylamine as a route for electroactive thin films. Physical Chemistry Chemical Physics, 2011, 13, 4013.	1.3	22
39	Modification of Hematite Electronic Properties with Trimethyl Aluminum to Enhance the Efficiency of Photoelectrodes. Journal of Physical Chemistry Letters, 2014, 5, 3582-3587.	2.1	21
40	Quantum dot-sensitized solar cells based on directly adsorbed zinc copper indium sulfide colloids. Physical Chemistry Chemical Physics, 2014, 16, 9115-9122.	1.3	20
41	Determination of electron diffusion lengths in nanostructured oxide electrodes from photopotential maps obtained with the scanning microscope for semiconductor characterization. Electrochemistry Communications, 2006, 8, 1784-1790.	2.3	19
42	Adsorption studies on titanium dioxide by means of Raman spectroscopy. Comptes Rendus Chimie, 2006, 9, 806-816.	0.2	19
43	Photocatalytic behavior of suspended and supported semiconductor particles in aqueous media: Fundamental aspects using catechol as model molecule. Catalysis Today, 2007, 129, 86-95.	2.2	19
44	Improving the Photoelectrochemical Response of TiO₂ Nanotubes upon Decoration with Quantum-Sized Anatase Nanowires. Journal of Physical Chemistry C, 2013, 117, 4024-4031.	1.5	18
45	Ultrasound-assisted selective hydrogenation of C-5 acetylene alcohols with Lindlar catalysts. Ultrasonics Sonochemistry, 2015, 26, 445-451.	3.8	18
46	Formate Adsorption onto Thin Films of Rutile TiO₂ Nanorods and Nanowires. Langmuir, 2008, 24, 14035-14041.	1.6	13
47	Modulating the n- and p-type photoelectrochemical behavior of zinc copper indium sulfide quantum dots by an electrochemical treatment. Chemical Communications, 2012, 48, 7681.	2.2	13
48	Potentiostatic Reversible Photoelectrochromism: An Effect Appearing in Nanoporous TiO₂/Ni(OH)₂ Thin Films. ACS Applied Materials & Interfaces, 2014, 6, 10304-10312.	4.0	12
49	Surface enhanced Raman spectroscopy for adsorption studies on semiconductor nanostructured films. Surface Science, 2004, 572, 329-336.	0.8	11
50	Tuning the oxygen evolution reaction activity of Ni- and Co-modified Fe(OH)2 electrodes through structure and composition control. International Journal of Hydrogen Energy, 2020, 45, 17076-17087.	3.8	11
51	New insights into water photooxidation on reductively pretreated hematite photoanodes. Physical Chemistry Chemical Physics, 2017, 19, 21807-21817.	1.3	10
52	Sonopotential: a new concept in electrochemistry. Chemical Communications, 2009, , 4127.	2.2	9
53	Hierarchically organized titanium dioxide nanostructured electrodes: Quantum-sized nanowires grown on nanotubes. Electrochemistry Communications, 2010, 12, 1356-1359.	2.3	7
54	A comparative photophysical and photoelectrochemical study of undoped and 2-aminothiophene-3-carbonitrile-doped carbon nitride. Electrochimica Acta, 2016, 219, 453-462.	2.6	5

#	Article	IF	Citations
55	Electron Lifetime in Quantumâ€Dotâ€Sensitized Photoanodes by Openâ€Circuitâ€Potential Measurements. ChemPhysChem, 2012, 13, 3589-3594.	1.0	4
56	Electrochemical Doping as a Way to Enhance Water Photooxidation on Nanostructured Nickel Titanate and Anatase Electrodes. ChemElectroChem, 2017, 4, 1429-1435.	1.7	4
57	Characterization and Polymerization of Thienylphenyl and Selenylphenyl Amines and Their Interaction with CdSe Quantum Dots. ChemPhysChem, 2011, 12, 1155-1164.	1.0	2
58	Recent Progress in Colloidal Quantum Dot-Sensitized Solar Cells. Lecture Notes in Nanoscale Science and Technology, 2014, , 1-38.	0.4	1